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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,750	12/10/2003	Mark Foladare	1014-054 (2002-0389)	6537
26652	7590	09/21/2007	EXAMINER	
AT&T CORP. ROOM 2A207 ONE AT&T WAY BEDMINSTER, NJ 07921			AGHERA, SAMEER R	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/732,750	Applicant(s) FOLADARE ET AL.	
	Examiner Sameer Aghera	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on August 13th, 2007 has been entered. Claims 1, 3, 19, and 20 have been amended. Claim 9 has been canceled. Claim 21 has been added. Claims 1-8 and 9-21 are still pending in this application, with claims 1, 19, and 20 being independent.

Claim Objections

2. Claim 3 is objected to because of the following informalities: on lines 2-3 it states "performing the statistical regression if the at least one of the historical QoS metrics." The Examiner notes that "if" should be replaced with "of." Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-11 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1).

Parlos discloses a system for actively controlling distributed applications comprising the following features: regarding **claim 1**, a plurality of subscribed services (Figure 2) associated with a subscriber endpoint (Figure 2, item 260) in a communications network (Figure 1A), for a wired connection (Figure 2, item 240) associated with the subscribed service (Figure 2): determining a current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); and based on the current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) and historical QOS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) for the subscribed service (see "may consist of metrics such as e2e delay, e2e delay jitter, packet loss, and throughput requirements" page 3, paragraph 51), adjusting a QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) to change a future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104); regarding **claim 2**, determining the historical QOS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); regarding **claim 4**, estimating the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104); regarding **claim 5**, estimating the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104) for the wired connection (Figure 1A); regarding **claim 6**, determining the QOS-affecting variable (see "QoS metrics

forecasting component 320" page 7, paragraph 104); regarding **claim 7**, determining an adjustment (see "determining adjustments" page 5, paragraph 78) to the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104); regarding **claim 8**, the future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104) fulfills a requirement of the subscribed service (see "set of measureable metrics" and "throughput requirements" page 3, paragraph 51); regarding **claim 10**, the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) is compression algorithm (see "ACC algorithm incorporates compression" page 5, paragraph 86); regarding **claim 11**, the QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) is transmission rate (see "bit rate" page 2, paragraph 13); regarding **claim 19**, determining a current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); and utilizing the current QOS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) and historical QOS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) for the subscribed service (see "may consist of metrics such as e2e delay, e2e delay jitter, packet loss, and throughput requirements" page 3, paragraph 51), adjusting a QOS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104) to change a future QOS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104); regarding **claim 20**, the means for

determining a current QoS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104); and utilizing the current QoS metric (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) and historical QoS metrics (see "QoS metrics measurements 270 including current and previous QoS metrics measurements" page 7, paragraph 104) for the subscribed service (see "may consist of metrics such as e2e delay, e2e delay jitter, packet loss, and throughput requirements" page 3, paragraph 51), means for adjusting a QoS-affecting variable (see "QoS metrics forecasting component 320" page 7, paragraph 104), to change a future QoS metric (see "predict or forecast multi-step-ahead values of the various QoS metrics" page 7, paragraph 104).

Parlos does not disclose the following features: regarding **claims 1, 19, and 20**, determining the future QoS metric determined based upon a statistical regression of at least one of the historical QoS metrics; regarding **claim 3**, performing the statistical regression of the at least one of the historical QoS metrics.

Helsper discloses an enhanced computer performance forecasting system comprising the following features.

Regarding **claims 1, 19, and 20**, determining the future QoS metric (see "new forecast," page 1, paragraph 8) determined based upon a statistical regression (see "regression algorithm," page 1, paragraph 8) of at least one of the historical QoS metrics (see "learned parameters," page 1, paragraph 8).

Regarding **claim 3**, performing the statistical regression (see “regression algorithm,” page 1, paragraph 8) of the at least one of the historical QoS metrics (see “learned parameters,” page 1, paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Parlos with the features, as taught by Helsper, in order to produce accurate near-term predictions of future network performance (see Helsper page 1, paragraph 7).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1), further in view of Murphy (6,542,499 B1).

Parlos and Helsper disclose the claimed limitations in paragraph 4 above. Parlos and Helsper do not disclose that the current QOS metric is sound clarity.

Murphy discloses a call fallback scheme used for a VoIP link comprising the following features.

Wherein that the current QOS metric (see “QoS” col. 1, lines 29) is sound clarity (see “sound quality” col. 1, lines 32).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Parlos and Helsper, by using the features, as taught by Murphy, in order to reduce cost for the customer by effectively switching between the PSTN and IP network (see Murphy, col. 1, lines 51-58).

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1), further in view of Gehring (6,944,148 B1).

Parlos and Helsper disclose the claimed limitations in paragraph 4 above. Parlos and Helsper do not disclose the following features: regarding claim 13, wherein the current QoS metric is sound fidelity; regarding claim 14, wherein the current QoS metric is voice quality.

Gehring discloses a method to manage variable-sized data slots comprising the following features.

Regarding claim 13, wherein the current QOS metric (see "QoS" col. 2, lines 44) is sound fidelity (see "fidelity" col. 2, lines 53).

Regarding claim 14, wherein the current QOS metric (see "QoS" col. 2, lines 44) is voice quality (see "stereo-quality" col. 2, lines 53).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos and Helsper, by using the features, as taught by Gehring, in order to achieve optimal performance for sound quality (Gehring, col. 2, line 49).

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1), further in view of Bai (US 2005/0152397 A1).

Parlos and Helsper disclose the claimed limitations in paragraph 4 above. Parlos and Helsper do not disclose the following features: regarding claim 15, wherein the current QOS metric is video picture quality; regarding claim 16, wherein the current QOS metric is video picture movement.

Bai shows a communication system that is able to manage the flow of packets comprising the following features.

Regarding claim 15, wherein the current QoS metric (see "Quality of service primitive" page 9, paragraph 134) is video picture quality (see "video quality" page 9, paragraph 134).

Regarding claim 16, wherein the current QOS metric (see "Quality of service primitive" page 9, paragraph 134) is video picture movement (see "quality and resolution" page 9, paragraph 134). The Examiner notes that video movement is interpreted to mean the ability to sustain a set resolution.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos and Helsper, by using the features, as taught by Bai, in order to minimize delay and maximize throughput in video data (see Bai page 9, paragraph 132).

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1), further in view of Bearden (6,871,233 B1).

Art Unit: 2616

Parlos and Helsper disclose the claimed limitations in paragraph 4 above. Parlos and Helsper do not disclose the following features: the current QOS metric is response time.

Bearden discloses a method to insure quality of service in computer networks comprising the following features.

Wherein the current QOS metric (see "QoS metric" col. 1, lines 60) is response time (see "service response time" col. 1, lines 61).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos and Helsper, by using the features, as taught by Bearden, in order to easily supply parameters for QOS (see Bearden, col. 1, lines 56-57).

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1), further in view of Lotter (US 2003/0219034 A1).

Parlos and Helsper disclose the claimed limitations in paragraph 4 above. Parlos and Helsper do not disclose the following features: the current QoS metric is error rate.

Lotter discloses a method to optimize a radio link comprising the following features.

Wherein the the current QOS metric (see "QoS" page 1, paragraph 8) is error rate (see "Bit Error Rate" page 1, paragraph 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos and Helsper, by using the features, as taught by Lotter, in order to optimize constrained resources in a radio network (see Lotter, page 1, paragraph 17).

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parlos (US 2005/0013244 A1) in view of Helsper (US 2002/0049687 A1), further in view of Ranganathan (6,487, 578 B2).

Parlos and Helsper disclose the claimed limitations in paragraph 4 above. Parlos and Helsper do not disclose the following features: causing a multimedia conference to be viewed at the subscriber endpoint, the multimedia conference one of the plurality of subscribed services, video of the multimedia conference provided to the subscriber endpoint, the video compressed at a compression rate, the multimedia conference provided with still pictures to a second endpoint, the still pictures provided responsive to an automatic determination that the second endpoint is connected to the multimedia conference via a connection that lacks sufficient bandwidth to receive the video of the multimedia conference at the compression rate.

Ranganathan discloses an adaptive resource utilization apparatus comprising the following features.

Causing a multimedia conference (see "application," Abstract) to be viewed at the subscriber endpoint (see "user," col. 3, line 49), the multimedia conference (see "application," Abstract) one of the plurality of subscribed services (see Figure 2), video

of the multimedia conference provided to the subscriber endpoint (see Figure 2, item 210), the video compressed at a compression rate, the multimedia conference provided with still pictures to a second endpoint, the still pictures provided responsive to an automatic determination that the second endpoint is connected to the multimedia conference via a connection that lacks sufficient bandwidth to receive the video of the multimedia conference at the compression rate (see Figure 3 and "video frame rate," col. 3, line 25 and "frame rate," col. 9, lines 12-22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Parlos and Helsper, by using the features, as taught by Ranganathan, in order to allow an application to modify its operation to be more efficient (see Ranganathan, col. 2, lines 24-27).

Response to Arguments

11. Applicant's arguments with respect to claims 1-8 and 10-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2616

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer Aghera whose telephone number is 571-272-9744. The examiner can normally be reached on M-F 7:30 AM to 5 PM; Off every other Friday.

Art Unit: 2616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on 571-272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA

Sameer Aghera

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Kwang Bin Yao', is written over the printed name and title.